



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/298,603

04/23/1999

BORIS KLOTS

50277210

2232

29989

7590

03/10/2004

HICKMAN PALERMO TRUONG & BECKER, LLP
1600 WILLOW STREET
SAN JOSE, CA 95125

EXAMINER

VU, THONG H

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 03/10/2004

22

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/298,603

Applicant(s)

KLOTS ET AL.

Examiner

Thong H Vu

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-9, 16-23, 25-28 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 16-23, 25-28 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. Claims 1-4,6-9,16-23,25-28, 30-32 are pending.

Response to Arguments

2. Applicant's arguments, see paper#21, filed 1/02/04, with respect to the rejection(s) of claim(s) 1-4,6-9,16-23,25-28,30-32 under Aahlad and Baylor have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Aahlad and the well-known art.
3. Examiner withdraw the rejection of claims 30-32 under U.S.C.112 first paragraph and of claims 30-32 under U.S.C.112 second paragraph of claims 1,16 and 20.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4,6-9,16-23,25-28 are rejected under 35 U.S.C. § 103 as being obvious over Aahlad et al [Aahlad 5,969,967] in view of Misheski et al [Misheski 5,915,252].
5. As per claim 1, Aahlad discloses a method for processing data on a distributed computing system that includes a plurality of nodes [Aahlad, a distributed computing system, col 1 lines 7-12, Fig 5], the method comprising the steps of:

in response to receiving a first work request to perform first work from a first process on a first node from the plurality of nodes, determining based upon the first work and the mapping data, that the first work is to be performed on a second node

from the plurality of nodes [Aahlad, distributed object using an interface definition language that can be mapped to a variety of different programming languages, col 6 lines 15-67];

providing the first work request to a second process on the second node [Aahlad, the client process and server process, col 9 lines 57-col 10 line 2; col 11 lines 5-17], wherein the first work request specifies that the first process is to directly receive results of the first work [Aahlad, return any results directly to the client, col 10 lines 31-54];

determining based upon the first work and the mapping data, that the first work is also to be performed on a third node from the plurality of nodes [Aahlad, Fig 12, col 15 lines 4-55],

providing a second work request to a third process on the third node wherein the second work request specifies that results of the first work performed on the third node is provided directly to the first process. It was clearly that a return conspiracy engine pointer and a conspirator object reference can be used to return the result to the first client or other client as a design choice [Aahlad col 15 lines 4-55]

However Aahlad does not explicitly disclose maintaining mapping data that specifies work that can be performed by each of the plurality of nodes;

It was well-known in the Object oriented programming art that a distributed computing system includes a plurality of clients and servers (i.e.:Internet), a mapping data that specifies work that can be performed by each of the plurality of nodes as taught by Misheski [Misheski, a distributed computer system, col 12 lines 40-53;

Internet, col 13 lines 52-65; target mapping, col 14 lines 16-31, col 15 lines 12-50, col 18 lines 12-43; col 26 lines 25-67][see Nock, Toutonghi, Hayata, Cloud, Kapoor references].

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the technique of using the mapping data that specifies work that can be performed by a local client as taught by Misheski into the Aahlad's apparatus in order to utilize the client/server processes on the distributed system. Doing so would facilitate optimal use of client-servers in answering the request by sending the result directly to client or via Internet.

6. Claims 16,20 contain the similar limitations set forth of method claim 1, except the director (or ORB) [Aahlad, col 6 lines 15-60]. Therefore, claims 16,20 are rejected for the similar rationale set forth in claim 1.

7. As per claims 2,21 Aahlad-Misheski disclose including the steps of in response to receiving a second request to perform second work from the first process, determining that the second work is to be performed on a third node from the plurality of nodes, and providing the second request to a third process on the third node, wherein the second request specifies that the first process is to receive results of the second work directly from the third process [Aahlad, Fig 5, col 10 lines 31-54].

8. As per claims 3,22 Aahlad-Misheski disclose including the steps of in response to receiving a second request to perform second work from a third process on a third node

from the plurality of nodes, determining based upon the second work and the mapping data, that the second work is to be performed on the second node, and providing the second request to the second process, wherein the second request specifies that the third process is to receive results of the second work directly from the second [Misheski, a distributed computer system, col 12 lines 40-53; Internet, col 13 lines 52-65; target mapping, col 14 lines 16-31, col 15 lines 12-50, col 18 lines 12-43; col 26 lines 25-67].

9. As per claims 4,23 Aahlad-Misheski disclose including the steps of in response to receiving a second request to perform second work from a third process on a third node from the plurality of nodes, determining based upon the second work and the mapping data, a fourth node from the plurality of nodes on which the second work is to be performed, and providing the second request to a fourth process on the fourth node, wherein the second request specifies that the third process is to receive results of the second work directly from the [Misheski, a distributed computer system, col 12 lines 40-53; Internet, col 13 lines 52-65; target mapping, col 14 lines 16-31, col 15 lines 12-50, col 18 lines 12-43; col 26 lines 25-67].

10. As per claims 6,25 Aahlad-Misheski disclose the step of determining that the first work is to be performed on a second node includes the step of determining one or more resources required to perform the first work, and determining which of the plurality of nodes is allowed to perform the first work on the one or more resources as inherent feature of ORB [Aahlad col 10 lines 31-54].

11. As per claims 7,26 Aahlad-Misheski disclose the step of determining that the first work is to be performed on a second node from the plurality of nodes includes the step of a director determining that the first work is to be performed on a second node from the plurality of nodes, and the step of providing the first work request to a second process on the second node includes the step of the director providing the first work request to a second process on the second node as inherent feature of ORB [Aahlad col 10 lines 31-54].

12. As per claims 8,27 Aahlad-Misheski disclose the step of upon completion of the first work, the second process providing the results of the first work directly to the first process [Aahlad].

13. As per claims 9,28 Aahlad-Misheski disclose the first work request is a remote procedure call [Aahlad, remote computer, col 11 lines 5-17].

14. As per claim 17, Aahlad-Misheski disclose the director is further configured to provide the first work request to the second process as inherent feature of ORB [Aahlad col 10 lines 31-54]

15. As per claim 18, Aahlad-Misheski disclose the director is further configured to generate a second work request to requests that the second process perform the first work and provide the first results directly to the first process, and provide the second

work request to the second process as inherent feature of ORB [Aahlad col 10 lines 31-54]

16. As per claim 19, Aahlad-Misheski disclose resource data that specifies the access rights of the plurality of nodes relative to resources as inherent feature of client-server communications.

17. As per claim 31, Aahlad-Misheski disclose the similar limitations set forth of method claim 1 [see rejection claim 1], except generating an updated first work request that specifies that the first process is to directly receive results of performing the first work [Aahlad col 10 lines 31-54]

18. Claims 30 and 32 are rejected for the similar rationale set forth in claim 31.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thong Vu, whose telephone number is (703)-305-4643.

The examiner can normally be reached on Monday-Thursday from 8:00AM- 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Jack Harvey*, can be reached at (703) 305-9705.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9700.

Any response to this action should be mailed to: Commissioner of Patent and Trademarks, Washington, D.C. 20231 or faxed to :

After Final (703) 746-7238

Official: (703) 746-7239

Non-Official (703) 746-7240

Hand-delivered responses should be brought to Crystal Park 11,2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Thong Vu
Patent Examiner
Art Unit 2142

